

CLAIMS

What is claimed is:

Sub B7 1. An anode to be used with a metal deposition system containing a cathode, the anode comprising:
a plurality of anode segments; and
an electrical source coupled to each of the anode segments.

Sub 921 2. The anode of claim 1, wherein at least two of the plurality of anode segments are aligned with each other relative to a plane taken perpendicular to the common segment axis.

3. The anode of claim 1, wherein at least two of the plurality of anode segments are aligned with a common axis.

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4. The anode of claim 1, wherein at least two of the plurality of anode segments are not aligned with a common axis.

Sub 925 5. The anode of claim 1, further comprising insulative mounts that position each one of the plurality of anode segments relative to each other.

6. The anode of claim 1, wherein each of the plurality of anode segments is constructed from copper or a copper alloy.

Sub 923 25 7. The anode of claim 1, wherein each one of the plurality of anode segments is physically closest to a distinct portion of the cathode.

8. The anode of claim 1, wherein at least one of the anode segment is cylindrical.

30 9. A method of supplying electricity to an anode formed from a plurality of anode segments, each one of the plurality of anode segments have a different radius, the method comprising:

applying electricity to an inner one of said plurality of anode segments;

waiting for a prescribed duration; and

applying electricity to each next inner one of said plurality of anode segments.

10. The method of supplying electricity to the anode as set forth in claim 9, wherein a
5 period of said waiting for a prescribed duration is based upon an electric field generated
by a cathode interacting with said anode.

11. The method of supplying electricity to the anode as set forth in claim 10,
wherein said cathode is a substrate.

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12. The method of supplying electricity to the anode of claim 9, wherein at least two of
the plurality of anode segments are aligned with a common axis.

13. The method of supplying electricity to the anode of claim 9, wherein at least two of
15 the plurality of anode segments are not aligned with a common axis.

14. A method of supplying electricity to an anode formed from a plurality of anode
segments to be spaced from a cathode, the method comprising:
sensing the electric fields generated by the anode; and
20 controlling the electricity supplied to different ones of the plurality of anode
segments in response to the sensed electric fields.

15. The method of claim 14, wherein each one of the plurality of anode segments is
physically closest to a distinct portion of the cathode.

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16. A computer readable medium that stores software that, when executed by a
processor, causes a system to supply electricity to an anode formed from a plurality of
anode segments to be spaced from a cathode, the software executed by the processor
performs a method comprising:

30 applying electricity to an inner one of said plurality of anode segments;
waiting for a prescribed duration; and
applying electricity to each next inner one of said plurality of anode segments.

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17. The method of claim 16, wherein each one of the plurality of anode segments is physically closest to a distinct portion of the cathode,

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